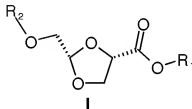


This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of claims:

1. (Currently Amended): A process for producing a compound of formula I:



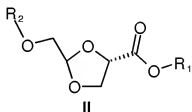
wherein

R₁ is C₁₋₁₂ alkyl, C₂₋₁₂ alkenyl, C₂₋₁₂ alkynyl, C₆₋₁₂ aryl, C₃₋₁₀ heterocycle, C₆₋₁₂ aralkyl or C₃₋₁₀ heteroaralkyl, and

R₂ is a hydroxyl protecting group;

said process comprising ~~the steps of:~~

- a) subjecting a ~~compound~~ compounds of formula II:



to an enzymatic diastereomeric resolution in the presence of a suitable amount of ~~enzyme~~ enzyme chosen from Pig Liver Esterase enzyme or Porcine Pancreatic Lipase enzyme;

- b) recovering said compound of formula I

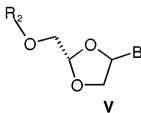
wherein;

R₁ is chosen from C₁₋₁₂ alkyl, C₂₋₁₂ alkenyl, C₂₋₁₂ alkynyl, C₆₋₁₂ aryl, C₃₋₁₀ heterocycle, C₆₋₁₂ aralkyl or C₃₋₁₀ heteroaralkyl; and

R₂ is a hydroxyl protecting group.

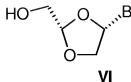
SHIRE-518

2. (Original): The process according to claim 1, wherein R_1 is C_{1-12} alkyl.
3. (Currently Amended): The process according to claim 1 wherein R_2 is chosen from: $CO-C_{1-6}$ alkyl, $CO-C_{6-12}$ aryl, $CO-C_{1-6}$ alkoxy, $CO-C_{6-12}$ aryloxy, or $CO-C_{6-12}$ arylalkyl.
4. (Currently Amended): The process according to claim 1, wherein R_2 is $CO-C_{6-12}$ aryl.
5. (Currently Amended): The process according to claim 1, wherein the enzyme is Pig Liver Esterase.
6. (Currently Amended): The process according to claim 1, wherein the enzyme is Porcine Pancreatic Lipase.
7. (Currently Amended): The process according to claim 1, further comprising the steps of:
 - a) replacing the functional group at position C4 of the compound of formula I to produce a compound of formula V:



wherein B is purine or pyrimidine base or an analogue thereof;

- b) removing the group R_2 of said compound of formula V;
- c) recovering a compound of formula VI:

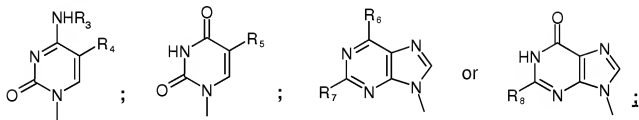


or a pharmaceutically acceptable salt thereof;

wherein;

~~B is purine or pyrimidine base or an analogue thereof.~~

8. (Currently Amended): The process according to claim 7, wherein
B is ~~chosen from:~~



wherein;

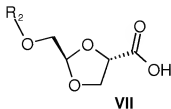
R₃ is ~~chosen from~~ H, C₁₋₆ alkyl, C₁₋₆ acyl, or and CO-R₉; ~~wherein~~

R₉ is H or C₁₋₆ alkyl;

R₄ and R₅ are each independently ~~chosen from~~ H, C₁₋₆ alkyl, bromide, chloride, fluoride, iodide or CF₃; and

R₆, R₇ and R₈ are each independently ~~chosen from~~ H, bromide, chloride, fluoride, iodide, amino, hydroxyl or C₃₋₆ cycloalkylamino.

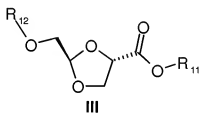
9. (Currently Amended): The process according to claim 1, further comprising the step of recovering a compound of formula VII:



10. (Original): A process according to claim 1, wherein R₁ is C₁₋₁₂ alkyl and R₂ is CO-C₆₋₁₂ aryl.

11. (Original): A process according to claim 1, wherein R₁ is methyl and R₂ is benzoyl.

12. (Currently Amended): A process for producing a compound of formula III:

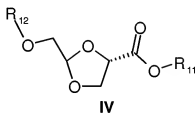


wherein

R₁₁ is C₁₋₁₂ alkyl, C₂₋₁₂ alkenyl, C₂₋₁₂ alkynyl, C₆₋₁₂ aryl, C₃₋₁₀ heterocycle, C₆₋₁₂ aralkyl or C₃₋₁₀ heteroaralkyl; and R₁₂ is a hydroxyl protecting group.

said process comprising ~~the steps of:~~

a) subjecting a compound ~~compounds~~ of formula IV:



to an enzymatic diastereomeric resolution in the presence of a suitable amount of enzyme,
wherein said enzyme is chosen from Candida Antarctica "A" lipase, Candida Antarctica "B" lipase, Candida Lypolitica Lipase, or Rhizomucor Miehei Lipase; and

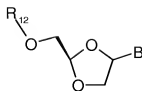
b) recovering said compound of formula III;

~~wherein; R₁₄ is chosen from C.sub.1-12 alkyl, C.sub.2-12 alkenyl, C.sub.2-12 alkynyl,~~

SHIRE-518

C_{sub.6-12} aryl, C_{sub.3-10} heterocycle, C_{sub.6-12} alkyl or C_{sub.3-10} heteroalkyl; and R₁₂ is a hydroxyl protecting group.

13. (Original): The process according to claim 12, wherein R₁₁ is C₁₋₁₂ alkyl.
14. (Currently Amended): The process according to claim 12, wherein R₁₂ is chosen from: CO-C₁₋₆ alkyl, CO-C₆₋₁₂ aryl, CO-C₁₋₆ alkoxy, CO-C₆₋₁₂ aryloxy, or CO-C₆₋₁₂ arylalkyl.
15. (Original): The process according to claim 12, wherein R₁₂ is CO-C₆₋₁₂ aryl.
16. (Original): The process according to claim 12, wherein the enzyme is Candida Antarctica "A" lipase.
17. (Original): The process according to claim 12, wherein the enzyme is Candida Antarctica "B" lipase.
18. (Original): The process according to claim 12, wherein the enzyme is Candida Lypolitica Lipase.
19. (Original): The process according to claim 12, wherein the enzyme is Rhizomucor Miehei Lipase.
20. (Currently Amended): The process according to claim 12, further comprising the steps of:
 - a) replacing the functional group at position C4 of the compound of formula III to produce a compound of formula VIII:

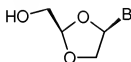


VIII

wherein B is purine or pyrimidine base or an analogue thereof;

b) removing the group R₁₂ of said compound of formula VIII;

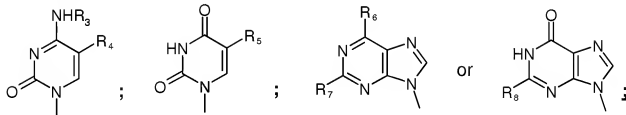
c) recovering a compound of formula IX:



IX

or a pharmaceutically acceptable salt thereof; wherein, B is purine or pyrimidine base or an analogue thereof.

21. (Currently Amended): The process according to claim 20, wherein B is ~~chosen from:~~



wherein;

R₃ is ~~chosen from~~ H, C₁₋₆ alkyl, C₁₋₆ acyl and CO-R₉; wherein

R₉ is H or C₁₋₆ alkyl;

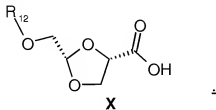
R₄ and R₅ are each independently ~~chosen from~~ H, C₁₋₆ alkyl, bromide, chloride, fluoride, iodide or CF₃; and

R₆, R₇ and R₈ are each independently ~~chosen from~~ H, bromide, chloride, fluoride, iodide, amino,

SHIRE-518

hydroxyl or C_{3,6} cycloalkylamino.

22. (Currently Amended): The process according to claim ~~12~~26, further comprising the step of converting said compound of formula III to a compound of formula IV and recovering said compound of formula X:



23. (Original): A process according to claim 12, wherein R₁₁ is C₁₋₁₂ alkyl and R₁₂ is CO-C₆₋₁₂ aryl.

24. (Original): A process according to claim 12, wherein R₁₁ is methyl and R₁₂ is benzoyl.